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April 28, 2014

Kevin Harnish
Civil Engineer
City of Annapolis
Department of Public Works
145 Gorman Street, 2nd Floor
Annapolis, Maryland 21401

Re: Aris T. Allen Boulevard Residential/Rocky Gorge PUD
GRD14-0006, DPW Review

Dear Mr. Harnish:

McLaren Engineering Group respectfully submits the following responses to your review comments received via email, dated 4-7-2014, for the above referenced Grading Permit Plans and Application.

Public Works Department:

1. COMMENT: *Cover Sheet, Sequence of Construction, Phase I, Note 1: DPW shall be notified.*

RESPONSE: Note 1 has been revised to instruct the contractor to notify DPW 48 hours prior to construction.

2. COMMENT: *Cover Sheet, Sequence of Construction, Phase II, Note 11: As-built plans shall include copies that are archival mylar.*

RESPONSE: The above referenced note has been revised to include a statement about including As-built mylar copies.

3. COMMENT: *Cover sheet, General Notes, Note 7: Replace "DENEP" with "DNEP".*

RESPONSE: General Note 7 has been revised as requested above.

4. COMMENT: *Drawing C4.00, Note 10: After the first sentence, add "The City of Annapolis does not warrant or guarantee the accuracy or completeness of these records. The contractor shall verify the location of all utilities to the contractor's satisfaction prior to construction."*

RESPONSE: The above referenced note has been added to Note 10 on Sheet C4.00

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5. COMMENT: Drawing C4.00, Demolition Legend: Add the symbol for test pit.

RESPONSE: The symbol for test pits has been added to the Demolition Legend.

6. COMMENT: Drawing C4.00: Show limit of work under this Phase and Part.

RESPONSE: The proposed limit of disturbance is now shown on Sheet C4.00.

7. COMMENT: An MSHA permit is required for pavement removal at north end of site. This permit shall govern the extent of the improvements.

RESPONSE: Noted. We are preparing a submission for an access permit with MSHA, for the construction entrance. Pavement removal is no longer proposed, as that area will need to remain as a service area to maintain appurtenances associated with the existing 24" Sewer Force Main.

8. COMMENT: A Maintenance of Traffic Plan is required for work along the existing Yawl Road.

RESPONSE: The MD Standard Detail No. 104.02-10, Flagging operation/2-Lane, 2-Way Eql/Less than 40 MPH has been added to sheet C16.30. The detail and notes provided shall provide the contractor with enough information to adequately maintain the flow of traffic while completing the proposed site improvements at Yawl Road.

9. COMMENT: The boundary for Part 1 shall include the entire area necessary for completion of work.

RESPONSE: The Parts Phasing Line is to represent which residential units will be built under Part 1. The Grading Plans (Sheets C6.00-C6.20), clearly show the limits of all proposed work under the Part 1 Grading Permit.

10. COMMENT: Show LOD for Part 1 on all applicable drawings.

RESPONSE: The LOD is shown for Part 1 on all applicable drawings.

11. COMMENT: Drawing C6.00: The utility easement in the southeast corner of the site is labeled as "proposed". Has this easement been acquired? If so provide Liber and Folio on this and other drawings that show the easement.

RESPONSE: The utility easement is existing and has now been labeled as "Ex. Utility Esmt". This easement was recorded on the record plat for this PUD (P.B. 293, Page 48, Plat #15224).

12. COMMENT: Cover Sheet, Sequence of Construction: Detailed schedule and timelines for construction shall be provided and shall include final pavement of the existing Yawl Road and the extension of Yawl Road between the existing limits and the property line of the new development.

RESPONSE: Durations are now shown for each task within the Sequence of Construction, on the Cover Sheet (C1.00).

13. *COMMENT:* The roadway between the existing limits of Yawl Road and the property line of the new site shall be completed during Phase I, Part 1 of the project. The stabilized construction entrance on Yawl Road shall be moved within property lines of the new site.

RESPONSE: The location of the SCE off Yawl Road cannot be relocated, and the beginning of Yawl Road extended, will be completed towards to the end of the project. Curb and gutter, and base paving construction typically takes place near project completion. Furthermore, rough grading and utility construction will need to be completed first, all requiring a stabilized construction entrance at Yawl Road.

14. *COMMENT:* Has the 20 foot temporary grading easement between the existing limits of Yawl Road and the property line of the new site been obtained?

RESPONSE: The 20 foot temporary grading easement exists, and is recorded at L.19978 F.101

15. *COMMENT:* Retaining wall plan and details must be on the Civil Drawings.

RESPONSE: The retaining wall is shown in plan view, and the retaining wall details are found on the Hardscape Details sheets (L3.0).

16. *COMMENT:* Storm drain profiles shall show the limits of public ownership and shall specify storm drain connection types.

RESPONSE: The storm drain profiles now reference the limits of public and private ownership and maintenance.

17. *COMMENT:* Drawing C13.00: Specify how pipes will be installed in fill areas.

RESPONSE: It is CLEARLY shown on drawing C13.00 how pipes are to be installed in fill areas. Controlled/Select backfill has been specified in fill locations, and denoted with a cross hatch pattern. Furthermore, a call out and note points to the areas of specified backfill, to be completed per City of Annapolis Standards and Specifications.

18. *COMMENT:* Plans and profiles of roadways and utilities shall be consistent with regards to direction. E.g. Utility profiles should run west to east so that features on the western side of the utility plans are on the left hand side of the utility profile. For roadway plan and profile drawings (C14.00 – C14.30), plan views shall have the north arrow pointing towards the top of the page, with profiles that match accordingly.

RESPONSE: The direction shown in plan and profile view for road grade establishment and utilities are shown per design and drafting preference. All information shown is complete and accurate regardless of plan and profile orientation. We respectfully decline to alter the plan and profiles view and directions.

19. COMMENT: Drawing C14.00: Analyze vertical geometry with respect to flat areas at PVI's and drainage.

RESPONSE: Vertical geometry has been analyzed with respect to low points at PVI's. As a result inlets have been placed at these locations to provide proper drainage.

20. COMMENT: Drawing C14.00, Note 3 and 4: What is "public street"?

RESPONSE: "Public Street" was a place holder prior to the street being named. The Public Street is now known as "Sydney Circle". The word "Public Street" has been replaced with "Sydney Circle" on sheet C14.00.

21. COMMENT: Analyze the drainage of the site due to grading of Part 1 prior to start of Part 2.

RESPONSE: A "Preliminary Erosion & Sediment Control Plan" is now provided for the overall development (Parts 1 & 2). This plan shows a schematic layout of a sediment trap and earth dikes that will direct sediment laden runoff to the trap.

22. COMMENT: Drawing C16.10, Standard Road and Street Details, Pavement Sections: Only Type 5 shall be used for Yawl Road. Increase Type 5 Binder Course Bituminous Concrete (BI Band) thickness from 3 inches to 4 inches.

RESPONSE: A note has been added beneath detail R 2.0-Pavement Sections, indicating that the Type 5 Pavement Section shall be used. Furthermore, the Binder Course Bituminous Concrete (BI Band) thickness has been increased from 3 inches to 4 inches, as now shown on the detail.

23. COMMENT: Drawing C16.10, Sidewalk Ramps Perpendicular: Detectable Warning Surface must be submitted to DPW for approval prior to installation.

RESPONSE: A note has been added beneath both details to indicate that the Detectable Warning Surface should be submitted to DPW for approval prior to installation.

24. COMMENT: Yawl road stations on Grading and Utility Plans (C6.00-C7.0) do not match stations shown on Drawing C14.00. Review road stations and make consistent on all drawings, including stations shown on Drawing C16.40.

RESPONSE: Stationing for Yawl Road has been turned off on the Grading and Utility Plans (C6.00-C7.00) as to avoid confusion. The grade establishment plans are the only drawings that reference road stationing. Stationing has been corrected on Drawing C16.40.

25. COMMENT: Drawing L3.0, Concrete Paver Crosswalk detail: See City of Annapolis standard for crosswalks with brick. If installed on a City of Annapolis street, this detail must be within the civil drawings.

RESPONSE: The Concrete Paver Crosswalk detail has been replaced on Sheet L3.0, with the City of Annapolis detail.

26. COMMENT: Drawing L3.0, Cantilever Retaining Wall Detail: Retaining wall may require both ornamental fence and guardrail. Where does the underdrain drain to? Does the road border the retaining wall? If so show the road on the detail. The retaining wall shall be private and maintained by the HOA.

RESPONSE: a) the retaining wall detail calls out for an ornamental fence or guardrail where required. b) the retaining wall detail calls out for the underdrain to connect to the nearest storm drain system. c) the retaining wall parallels the road network, but on private property, and thusly the road is not shown on the detail. d) a general note has been added to the cover sheet to explicitly state that the retaining walls shall be private and maintained by the HOA.

27. COMMENT: Provide callouts to details on plan views.

RESPONSE: Callouts for details are provided on plan views.

28. COMMENT: Cover Sheet, General Notes, Note 4: Replace "due to their negligence" with "by the contractor".

RESPONSE: Note 4 on the Cover Sheet has been revised as requested above.

29. COMMENT: Cover Sheet, General Notes, Note 8: A verb is missing from this sentence.

RESPONSE: General Note 8 has been revised.

30. COMMENT: Cover Sheet, General Note 10: Update for the latest revision to the Anne Arundel County Details. Add "except as otherwise noted".

RESPONSE: General Note #10 has been updated, on the Cover Sheet.

31. COMMENT: Part 1 construction must include a hydrant at the western end of the Part 1 water main along the proposed extension of Yawl Road.

RESPONSE: A Fire Hydrant is now proposed at the western end of Part, along Yawl Road at W.L. Sta. 14+29.

32. COMMENT: Connection to the water main at Yawl Road shall be with 2 Tees spaced at a minimum of 2 feet apart.

RESPONSE: The connection to the water main at Yawl Road has been revised, and an 8"x6" TS&V is now called out to connect to the existing 8"W.

33. COMMENT: Show existing water line along existing Yawl Road on all applicable drawings.

RESPONSE: The existing water line has been shown on all applicable drawings.

34. COMMENT: Drawing C7.00: In the south east corner of the drawing, existing sanitary sewer line between manhole "EX G" and the nearest manhole to the south east does not exist. Sewer line from "EX G" extends to the north east, not south east. See City of Annapolis Utility Maps.

RESPONSE: The sewer line direction has been corrected.

35. COMMENT: Drawing C7.00: Manhole F is located on the edge of the proposed utility easement. All sewer and water lines shall be located so that a minimum of 5 feet is between the pipe centerline and the edge of the easement. Utility lines should be centered in the right-of-way where possible.

RESPONSE: Refer to the recorded plat for this PUD (P.B. 293, Page 48, Plat #15224). The sewer and water lines are well within the utility and municipal easement that encompasses the 'Parcel C' open space area where micro-bioretenention (MB-4) is located.

36. COMMENT: Drawing C12.00: Sanitary sewer profiles must show separation between Part 1 and Part 2 construction. All features of Part 2 construction on this and other drawings shall be clearly marked as not being included in the contract.

RESPONSE: Drawing C12.00 now shows a clear separation between Part 1 and Part 2 construction.

37. COMMENT: Drawing C12.00: Sanitary sewer main between manholes E and F is shown as SDR 35. Sanitary sewer mains must be SDR 26.

RESPONSE: Sanitary sewer main between manholes E and F has now been called out to be SDR 26.

38. COMMENT: Storm drain locations are not consistent between plan view and sewer/water profiles.

RESPONSE: Utility locations and crossings have been revised and are now correctly shown on all profiles.

39. COMMENT: Drawing C13.00: Include all utility crossings, including storm drains. Locations of utilities must be consistent between plans and profiles.

RESPONSE: Utility locations and crossings have been revised and are now correctly shown on all profiles.

40. **COMMENT:** Drawing C13.00: Specify on profiles that 4 feet is the minimum cover over water mains.

RESPONSE: 4 Ft. minimum cover is now specified over water mains, as shown on sheet C13.00.

41. **COMMENT:** Drawing C16.00: Replace the second, third and fourth detail from the left on the bottom road with corresponding details from the updated Anne Arundel County standard details. Keep the note from the manhole detail that states that the manhole cover must be identified as "City of Annapolis Sanitary Sewer".

RESPONSE: The above referenced details have been replaced with the corresponding Anne Arundel County standard details. The "Pipe Casing" detail actually does not apply to this site and has been removed. The note has been kept for the manhole detail and states that the manhole cover must identified as "City of Annapolis Sanitary Sewer".

42. **COMMENT:** The approved plan review drawings from 2006 showed a manhole M in Yawl Road, which directed sewer flow to the south along the private alley. Why was this manhole removed and the sewer alignment modified?

RESPONSE: SMH 'M' and the above referenced sewer segments are not proposed under Part 1 construction. This infrastructure will be constructed under Part 2 development.

43. **COMMENT:** The approved plan review drawings from 2006 showed a connection to the water system at the south east corner of the site. Why was this connection removed? The City requires looped water mains where possible.

RESPONSE: Part 1 is an interim condition, and the water distribution system will be looped and connect to the water main at the south east corner of the site in Part 2 of this project. In order to loop the water distribution system in Part 1, additional land disturbance would be required, and the goal of Part 1 is to minimize land disturbance as much as possible, in order to better meet the most current sediment control regulations. Water stagnation will not become an issue in the Part 1 condition, as a fire hydrant terminates at the end of the proposed 6" water main under Part 1 construction. This hydrant as well as water drawn from the service connection for Lot 47 will ensure that there is enough flow to keep the water fresh and potable for consumption.

44. **COMMENT:** Drawing C16.20: ¾" Metered Domestic Service detail shall be replaced with City of Annapolis Detail W07, Revised Aug. 2008. Contact DPW for detail. All other details on this page shall be replaced with corresponding details from the updated Anne Arundel County standard details.

RESPONSE: The water meter detail and other details on sheet 16.20, have been replaced with the corresponding details from the Anne Arundel County standard details.

45. **COMMENT:** Drawing C16.30. Buttresses for Horizontal Bends detail: Replace with corresponding detail from the updated Anne Arundel County standard details.

RESPONSE: The City of Annapolis Buttress detail for Horizontal bends has been replaced with the corresponding detail from the updated Anne Arundel County standard details.

46. **COMMENT:** The City requires that lighting installed in the public right of way be BGE approved lights and maintained by BGE. The developer is responsible for the cost of installation and the first year's energy cost as determined by the Director of Public Works.

RESPONSE: Noted. No response necessary.

47. **COMMENT:** All lighting on private alleys or private areas is the responsibility of the HOA. The HOA will be responsible for the energy costs and maintenance of these private area lights.

RESPONSE: Noted. No response necessary.

48. **COMMENT:** Any signage and markings will be the responsibility of the developer but must be in accordance with the Manual of Uniform Traffic Control Devices, latest Maryland Edition. Submit a plan showing the placement of signs and markings to the City of Annapolis, DPW for approval.

RESPONSE: A Pavement Marking & Signage Plan is now included with the Civil set of drawings.

49. **COMMENT:** The City would need a right of entry and hold harmless document approved by the City Attorney in order to provide refuse through a private alley.

RESPONSE: A municipal easement is already provided along the private alleys for City trash pick-up. Refer to General Note #14 on the recorded plat (Book 293, Page 47, Plat #15223).

50. **COMMENT:** The developer would be responsible for refuse until construction is complete and the City has accepted the public roadway by deed.

RESPONSE: Noted

51. **COMMENT:** The City is currently evaluating the existing sanitary sewer system to ensure that it has capacity to adequately support the proposed development. Any comments derived from this analysis will be forwarded to the applicant as soon as possible.

RESPONSE: Noted.

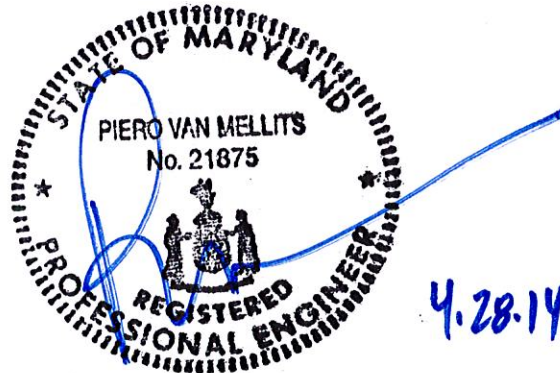
Please submit eight (8) copies of the revised plans to the Dept. of Neighborhood & Environmental Programs. Note, this does not include possible Environmental or Planning & Zoning plan review comments.

Thank you for your assistance, and if you have any questions or comments, please contact Pete Mellits at McLaren Engineering Group at 410-243-8787 or via e-mail at PMellits@MGMcLaren.com.

Very truly yours,

The Office of
McLaren Technical Services, Inc.
d/b/a McLaren Engineering Group


Piero "Pete" V. Mellits, P.E., LEED AP
Civil Engineering Manager



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